

CHAPTER 11

RECONNAISSANCE AND SURVEILLANCE
IN LOW-INTENSITY CONFLICT

During LIC operations, R&S must provide your commander a wide range of information in a complex environment.

FACTORS

Factors to consider when planning R&S in an LIC environment include--

- o US forces mission--counterinsurgency, combatting terrorism, peacekeeping operation, or peacetime contingency operations.
- o Threat--conventional forces, insurgent forces, terrorists, demonstrators, or a combination of two or more.
- o Environment--social, psychological, political, and economic factors. Terrain and weather are also important considerations.
- o Host nation government--support, information sharing, security forces, and military forces.

The US force's mission, environment, and host-nation government are influences that have an affect on what we do offensively or defensively. However, the LIC threat will require you to spend the most time learning how to predict the enemy's next move.

THREAT

The LIC threat can range from demonstrations, terrorist acts, insurgent or guerrilla activity to confrontations with conventional forces. The characteristics of a threat force depend on the level of insurgency. US maneuver forces will most likely face insurgent forces or a hostile country conventional military force. Your unit may face demonstrators or terrorist threats. But primary population control responsibility is with the host nation.

Insurgent or guerrilla forces usually fight in small cells. They carry light weapons and can concentrate forces against major facilities, then disperse after the operation. Insurgent forces can operate in urban areas but prefer remote areas for better concealment and security. You can expect to fight squad- to platoon-size forces when facing insurgent forces. They will rely on--

- o Well-planned ambushes.
- o Attacks on soft targets.
- o Sniper and mortar attacks.

The objective is to demoralize and frustrate their opponent by attacking a variety of targets in a wide AO. Segments of the populace can play a key role in the insurgent intelligence net; in which case, they would become a primary target of friendly CI efforts.

Guerrilla forces need support from political sympathizers or foreign powers. They need an effective system of obtaining food, ammunition, weapons, equipment, and training. In some cases insurgents conduct raids for equipment. By eliminating insurgent supply nets and sources they lose combat effectiveness.

See DA Pam 381-3, How Latin American Insurgents Fight, for detailed information.

CONVENTIONAL THREAT FORCES IN LIC

Conventional threat forces in an LIC environment conduct a variety of missions. These missions involve advising and assisting insurgent forces on how to fight. Conventional threat forces train insurgents on the use of sophisticated weapons or act as leaders for insurgent units. This involvement depends on support provided by the hostile government.

Conventional threat forces can operate in traditional

roles attacking and defending to support insurgents. These forces are infantry, or mechanized infantry supported by artillery, mortars, and armored vehicles. Along with limited CAS, they could have NBC weapons.

Their equipment is a mix from several major weapons-producing countries (for example, United States, Belgium, Soviet Union, China, and West Germany). Usually this equipment is a generation or two older than that found in modern armies. However, this trend is slowly changing. The type of weapons used in an LIC environment varies from homemade weapons (mines or shotguns) to sophisticated weapons (SA-7's). Understanding the capabilities of guerrilla/insurgent weapons and collection and target acquisition systems helps you in R&S planning.

GUERRILLA/INSURGENT OPERATIONS

Guerrilla operations are those military actions executed with selected commands and combatants. For this reason, it is necessary to obtain specific enemy information, and to know the enemy's situation by observation. In guerrilla operations, attacking by surprise and having control of key terrain are essential.

Everyone who engages in guerrilla operations, besides being elusive, must have had excellent training and preparation. The following are general prerequisites or priorities for the preparation of an individual guerrilla fighter.

- o Physical conditioning.
- o High morale.
- o Individual combat training.
- o Land navigation and knowledge of the terrain.
- o Complete understanding of the mission.
- o Clear understanding of his or her role in the mission.
- o Discipline.
- o Esprit de corps.
- o Aggressiveness, dexterity, self-confidence, valor, and courage.
- o Decisiveness and patience.

Guerrilla operations include--

- o The ambush.
- o The incursion.
- o The surprise attack.
- o Sabotage (machinery, electrical energy, and telephone).

o Infiltration (capture of personnel, weapons, and documents).

In every guerrilla operation, the execution of the mission must be guaranteed.

Current and accurate enemy information, including terrain and weather knowledge, are key to prepare, plan, and execute the mission. Every small detail must be covered in the plan, and nothing should be overlooked.

For each guerrilla operation, training or simulated attack must be conducted and verified; these must be in terrain which closely resembles the site characteristics where the operation will be carried out.

Individual guerrilla training must be continuous; it must always strive for superiority in all aspects of training. Training must focus on the prerequisites mentioned above.

Coordination is a high priority during each guerrilla operation. Coordination ensures teamwork and helps to guarantee the success of the operation.

Selected commands and combatants, as well as weaponry, are key ingredients for the operation. Each guerrilla fighter must make full use of weapons and must not fire continuously. It is very important that strict fire discipline be followed.

Terrain knowledge, appropriate camouflage, and surprise are essential elements during the execution of a guerrilla operation.

Surprise, security, rational use of resources, and economy of force are the key principles of guerrilla warfare tactics. These must be followed in every guerrilla operation.

Guerrillas around the world typically fight the same way. They use surprise, night operations, careful planning and selection of targets, and timing to inflict the greatest damage. They are particularly sensitive to the propaganda value of the psychological impact of every action they take, from a single terrorist act (bombing or political assassination) to a major assault on a critical installation.

Guerrillas can best be described as capable, all-weather soldiers who live off the land, thus reducing the amount of rations they need to carry. They operate in their own domain and, because of their familiarity with it, can negotiate the most difficult terrain in any kind of weather, at any time of the day. They usually attack at night to ensure the element of surprise. The overall combat effectiveness of these fighters is usually good.

UPPER ECHELON ORGANIZATION

The guerrilla's military organization is a network of insurgent groups placed in different parts of a country. It has a definite command structure based on geographical location. Thus, a "Northern Command," an "Eastern Command," a "Central Command," and a "Northwest Command" would correspond to the area of the country in which each command operates. Figure 11-1 shows a typical insurgent organization.

The guerrilla military organization is headed by a general staff with staff departments organized to fulfill training, logistic, troop, intelligence, and operational functions. Figure 11-2 shows the general staff. Figure 11-3 shows the logistic staff. Figure 11-4 shows the troop staff.

The guerrilla military forces have an infrastructure ranging from a brigade of several thousand down to a cell of three to five people. Falling in between are battalions or columns with 500; detachments, 100; platoons, 20 plus; and squads, 10.

The largest insurgent force normally encountered during combat is the platoon. The platoon consists of the platoon leader and two or three squads. Each squad has 7 to 11 soldiers, a squad leader, an information or

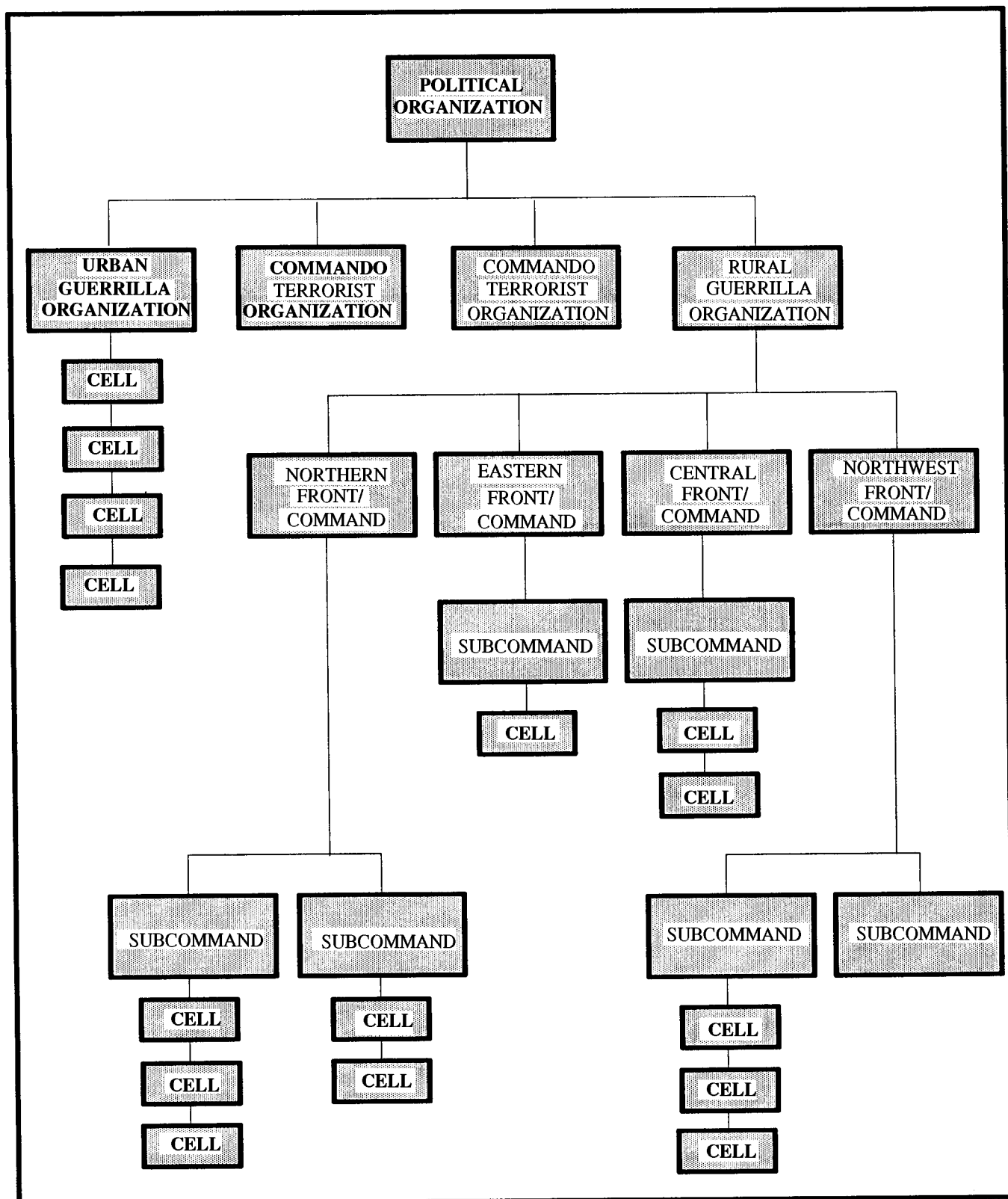


Figure 11-1. Insurgent organization.

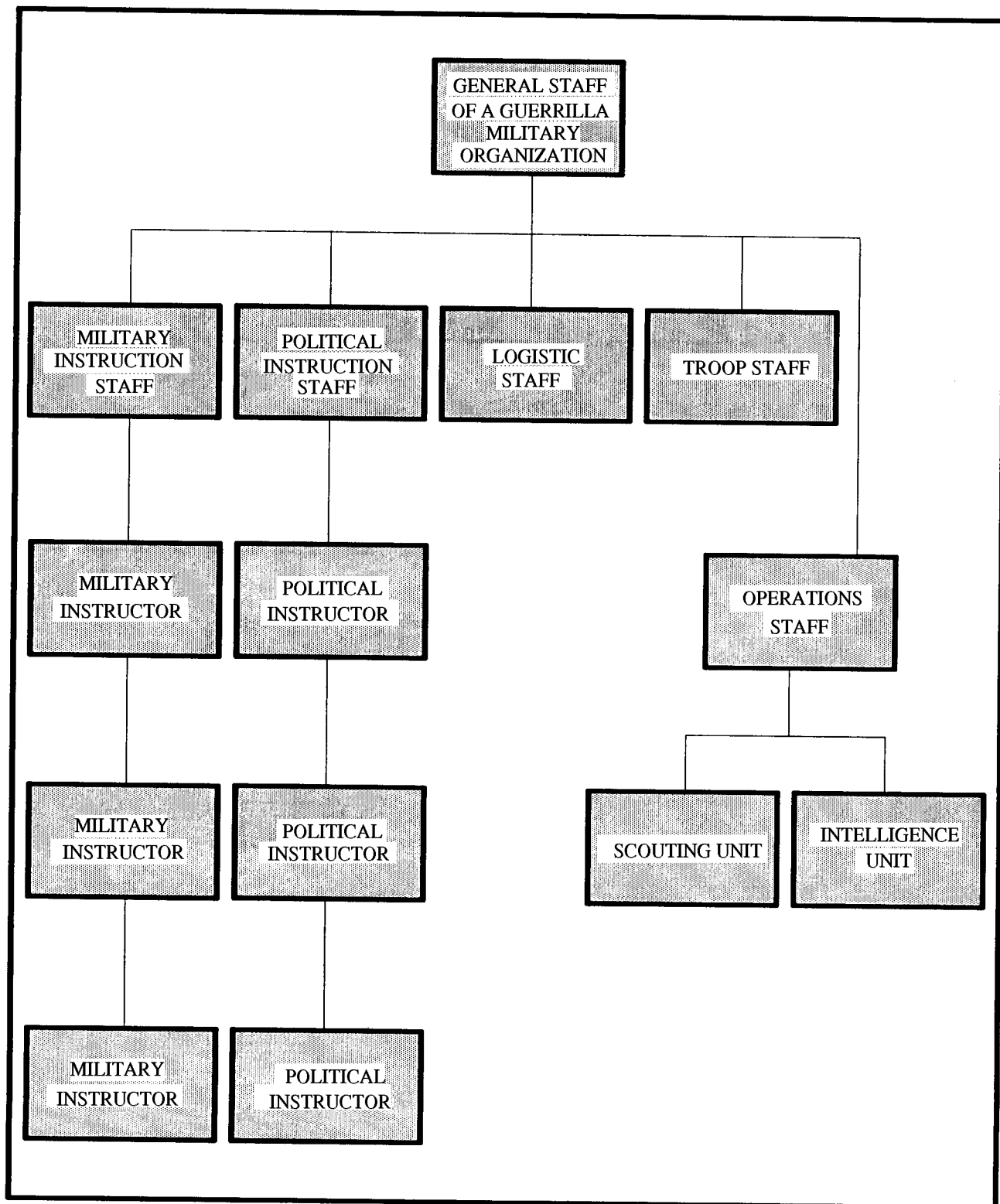


Figure 11-2. General staff.

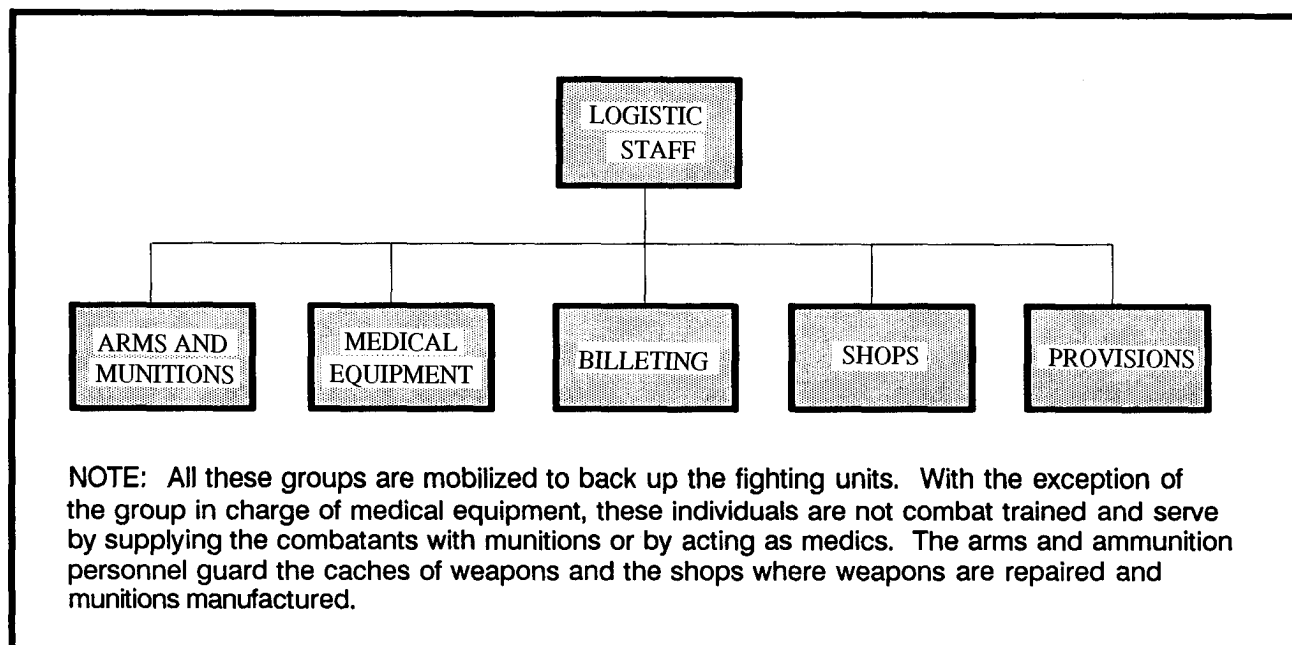


Figure 11-3. Logistic staff.

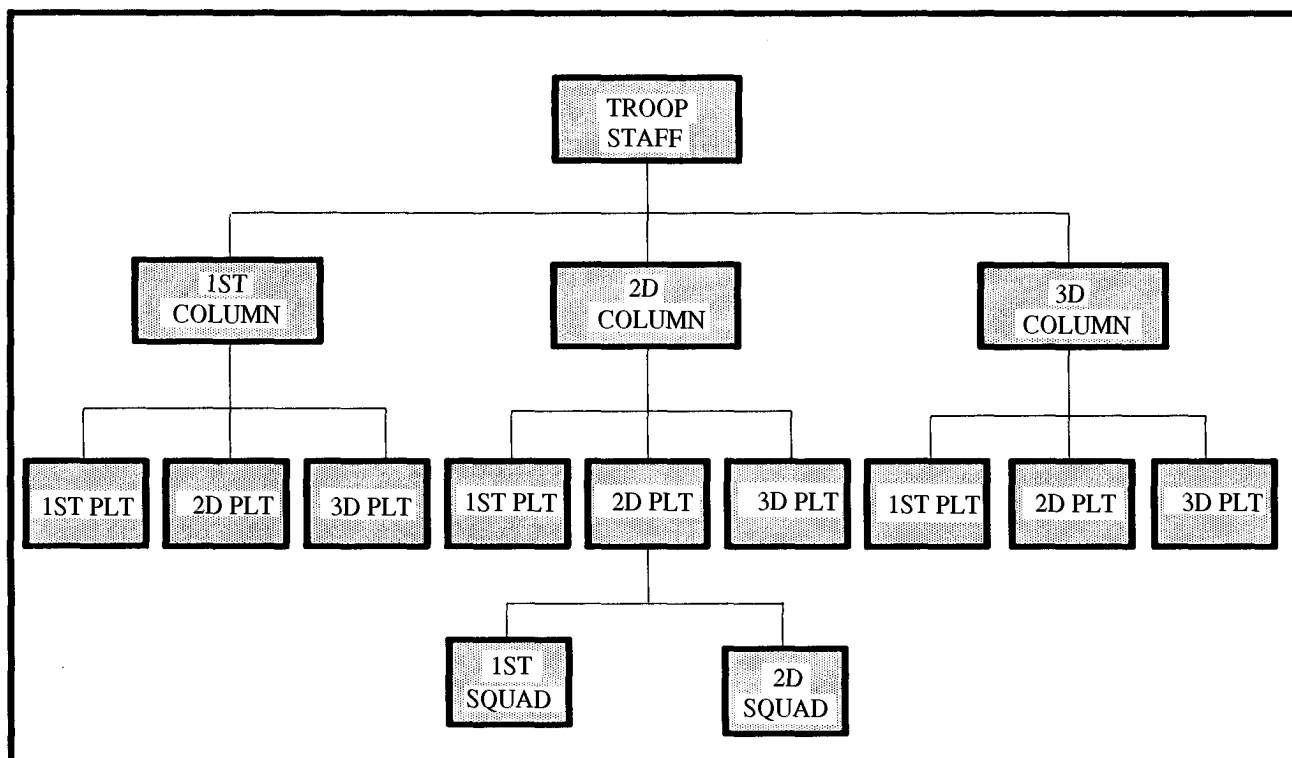


Figure 11-4. Troop staff.

political officer, and a messenger. Squads are sometimes subdivided into smaller units of three to five men (including a leader); these are also referred to as subsquads.

SUBSQUADS

These smaller units, called subsquads, have the following missions:

- o Combat subsquads maintain security for the remainder of the squad during movement.

- o Sabotage subsquads consist of a demolition section and a security section. The security section provides security to the demolition section during sabotage operations.

- o Reconnaissance subsquads consist of a reconnaissance section and a security section.

PLATOON

The guerrilla platoon is the basic (tactical) unit of the guerrillas. It is made up of--

- o One platoon leader.

- o Two squads (of 7 to 11 guerrillas each). Each squad also has one leader.

- o Each squad can be subdivided into two subgroups, depending on the mission.

Platoon organizations are--

- o Combat platoons have two squads: one assault squad and one security squad.

- o Reconnaissance platoons have two squads: one reconnaissance squad and one security squad.

- o Other platoons provide logistic support (storehouses for arms), withdrawal sites, communications system, transport, firing ranges and maneuver sites, underwater demolition, sabotage, and propaganda.

COMMAND AND CONTROL

The insurgent organization and chain of command simply consists of leaders and followers. Insurgent commanders exercise control over their forces by delegating command authority down to the platoon and squad levels. Although several platoons may be committed in combat, all missions are assigned and conducted at the squad level.

Insurgent combat units may operate alone when seizing terrain, but all unit commanders must ensure that the high command provides detailed instructions for their unit. The leader of a combat unit is expected to exercise effective control of all combatants, to assign specific functions, and to see that they are strictly complied with.

Insurgents are also trained to use their own initiative

when faced with unforeseen situations. The unit must be flexible and capable of solving problems associated with missions assigned by the supreme command in such areas as--

- o Communications.
- o Chain of command.
- o Mobilization of forces.
- o The use of equipment and firepower.

EQUIPMENT

Insurgents require the same combatant gear to perform their mission as the friendly forces; however, insurgents do not usually have the same equipment. Theirs is obtained from a variety of sources through a complex logistic system. Weapons, food, medicine, and other supplies are obtained by one of the following methods: black market, captured, stolen, or provided by second-party sources.

Much of the equipment is obtained from government forces through raids on isolated outposts or ambushes on military units and convoys; additional guerrilla supplies and arms come from other countries. Some equipment is purchased abroad with money obtained through terrorist activities (kidnapping and robbery) .

A more popular and practical means of obtaining

military supplies is by capturing government weapons; this ensures an abundant supply of ammunition and repair parts is available. The three essential requirements of insurgent weapons are availability, simplicity, and efficiency.

Usually, each combatant has the following equipment:

- o Rifle: Belgian FAL; Israeli Galil; German G-3; Soviet AK-47 or AKM; Czech M-25; and United States M-2, M-14, or M-16.
- o Pack or knapsack.
- o Web belt.
- o Canteen.
- o Beret, cap, or hat.
- o Protective combat clothing that blends with the terrain.
- o Combat boots.
- o Knife and steel blade.
- o Weapon cleaning equipment.
- o Nylon cord, approximately 2 meters long.
- o Square of plastic, 2 by 2 meters (to protect weapon from rain) .
- o Medication kit (such as aspirin, bandages) .

Each unit has a radio (probably commercial type, AM

FM 34-2-1

or FM) to keep the insurgents informed of the news.

An insurgent unit may have one or more of the following weapons:

- o Hand grenades (fragmentation, concussion, and incendiary).
- o Grenade launchers.
- o Mortars.
- o Mines of the claymore type.
- o An assortment of AT and air defense weapons.

ARTILLERY

Artillery is the principal fire power for some insurgent forces. Insurgents use it because of its range, volume of fire, and accuracy. The principal mission for an artillery unit is to neutralize or destroy the enemy and their means of combat. Mortars and recoilless weapons are usually the preferred artillery pieces used by the guerrilla, probably due to their mobility and portability.

Guerrillas can and will use captured heavier weapons. They will transport them by commercial vehicles into the battle area; or abandon them, if necessary, if they impede their withdrawal from the area. Artillery is classified according to--

- o Recoil construction and type of tube.

- o Caliber: small caliber, 20 to 57 mm; medium caliber, 58 to 152 mm; large caliber, over 152 mm.

- o Bore: smooth (mortar), the 205 mm has grooves.

- o Firing: high angle or flat trajectory.

- o Means of transport: mechanical traction or self-propelled.

- o Initial velocity classified as follows: mortars from 150 to 400 meters per second; a howitzer from 300 to 600 meters per second; and cannons from 900 to 1,500 meters per second.

It is important to note that some of this equipment is homemade, such as uniforms, pistol belts, and harnesses. Insurgent camps sometimes contain factories where Molotov cocktails; booby traps; claymore type mines; grenades; and ammunition, including mortars, can be produced at little cost in a short time.

TYPES AND SOURCES OF SUPPLIES

The guerrilla, by necessity, uses a wide variety of weapons, some self-manufactured, some captured, and some supplied from outside sources. In the earlier stages of a war, the weapons are usually primitive, homemade rifles, hand grenades, and claymore type mines; trails are crudely booby-trapped with Punji stakes and shallow pits lined with nail boards.

Nearly every guerrilla war has produced ingenious improvisations, both from necessity and to avoid a cumbersome logistic supply system. Nothing can be simpler to construct and use than a Molotov cocktail or a plastique bomb; and under certain conditions, nothing can be more effective.

Arms and Ammunition

All types of arms are needed for a guerrilla movement. However, there are three important factors which insurgents have to keep in mind when arms are selected: weight, range, and rate of fire. Guerrillas carry their weapons for long periods of time, thus the weapon must be as light as possible. The weapons must be effective both at short and long range. Maximum rate of fire is critical since guerrillas need to place a large amount of fire in a short amount of time. With a variety of weapons comes the need for different types of ammunition. Individuals responsible for acquiring ammunition must be able to distinguish between the different types and caliber rounds needed.

Food

Just as with arms and ammunition, food is a basic necessity for a guerrilla movement. It must be easy to carry, nutritious, and not perishable (such as chocolate, condensed milk, dried fish or

meat, rice, beans, cereals, sugar, coffee) . The main sources for food are local villages, supplies left behind by government troops, warehouses, stores, and the land itself.

Explosives

Explosives are the key to guerrilla operations due to their destructive power. They are used to destroy bridges, railroad lines, airports of military value, communication lines, and electrical towers. To acquire explosives, clandestine groups are formed which operate in areas where explosives are used. By attacking vehicles which transport the explosives, they are able to obtain the explosives needed.

Hand Grenades

These can be industrially or domestically manufactured. There are two types of hand grenades:

- o Defensive--A metallic container that splinters; has an effective range of more than 30 m; and is used mostly to break out of a siege by disorganizing the enemy.

- o Offensive--A container filled with an explosive charge, which when ignited, creates a proliferous blast of fire or pellets. This type is used mostly for ambushes and in attacks on garrisons. It also serves to disorganize the enemy, as well as cause casualties.

External Supplies

Nicaragua has been the main source of external supplies since the start of insurgences in Central America. While in South America, Cuba has been the primary source guaranteeing the guerrillas a sustained rate of supply and resupply. Supplies are carried by aircraft, small boats, trucks with false bottoms, stolen buses, or pack animals. It depends on the terrain and on the control exercised by the guerrillas in the area in which they are operating.

Internal Supplies

On the local level, if the guerrillas have funds, they purchase food and medicine. However, this is rare; and these are primarily acquired by stealing and pillaging from villages and towns temporarily occupied by guerrilla groups. Known as "war taxes," farmers and merchants are threatened with death if they fail to pay (comply).

In the cities, safe houses serve as storage and distribution points for the guerrilla's supply network. Large caches of weapons and ammunition are kept at convenient, centrally located, and relatively safe geographic locations.

In regions controlled by the guerrillas, the noncombatant camp followers are required to cultivate the land

for cereals and basic food grains, with the guerrillas taking half of the harvest. In some areas, sugar mills and slaughter houses are operated by collaborators of the guerrillas. Basic food stuffs such as beans, rice, cooking oil, salt, sugar, and corn are collected and stored before an insurgent offensive. When not in combat, guerrillas are able to obtain supplies with money almost anytime, anywhere.

COMMUNICATIONS

It is impossible to direct a war without communications. Among the most important forms of communication for the guerrillas is the radio. There are two types of radio communications: tactical and operative communications and strategic communications.

Tactical and Operative

These are the radio signals used by leaders to command their units in operations, marches, and encampments. Due to the need for maneuverability and agility, radios used include walkie-talkies, citizen band, and PRC-77.

Strategic

These are radio signals used by strategic commands in order to have an overall vision of all the fronts of the war and to direct the war. In long distance communications, a variable selection of ham radios are used.

When setting up a base camp, the radio operator seeks a high location to establish effective communications. Radio waves require LOS; so it is important that the radio operators set up operations at the highest point to avoid natural or artificial objects. The radio is always set upright with the antenna in a vertical position directed towards the receiver with whom the insurgent wishes to communicate. Messages are brief.

Relay stations bridge stations that do not have direct communication because of topographic obstacles or too long a distance. There are two types of relay station: manual (operated by an individual) and automatic (signal is sent out automatically when received) .

FORMS OF GUERRILLA COMBAT

To prepare for combat, the guerrillas must train in isolated locations. Figure 11-5 shows a typical guerrilla training complex. Before the guerrillas train on hitting targets they are indoctrinated on the typical targets they should hit. Figure 11-6 shows typical guerrilla targets.

RAID

This is a fast, surprise action carried out against an enemy position or force. Its purpose is related directly to current needs in the development of the guerrilla's

campaign (arms, food, propaganda). Generally, raids are well planned and carried out in small units composed of three to twelve individuals. They occur more frequently in the initial stages of an insurgency when few individuals and arms are available. Once their goal is achieved, the force withdraws quickly and disperses.

ASSAULT

This is a more sophisticated, complex attack designed to annihilate a target and its defenders. As assault is of a larger scale and purpose, it requires the occupation of positions and strategic locations since the guerrillas are fighting against prepared defensive positions of the enemy. At a certain phase of a local insurgency, the prime goal becomes that of eliminating enemy units, thus changing the correlation of forces in the region.

AMBUSH

This is an action carried out by small units against a moving enemy with great superiority in soldiers and arms. Factors that influence the outcome of an ambush are location, terrain, position, camouflage, signals, and retreat. There are three types of ambushes:

- o Annihilation--enemy troops sustain the maximum number of casualties to reduce or destroy the combat

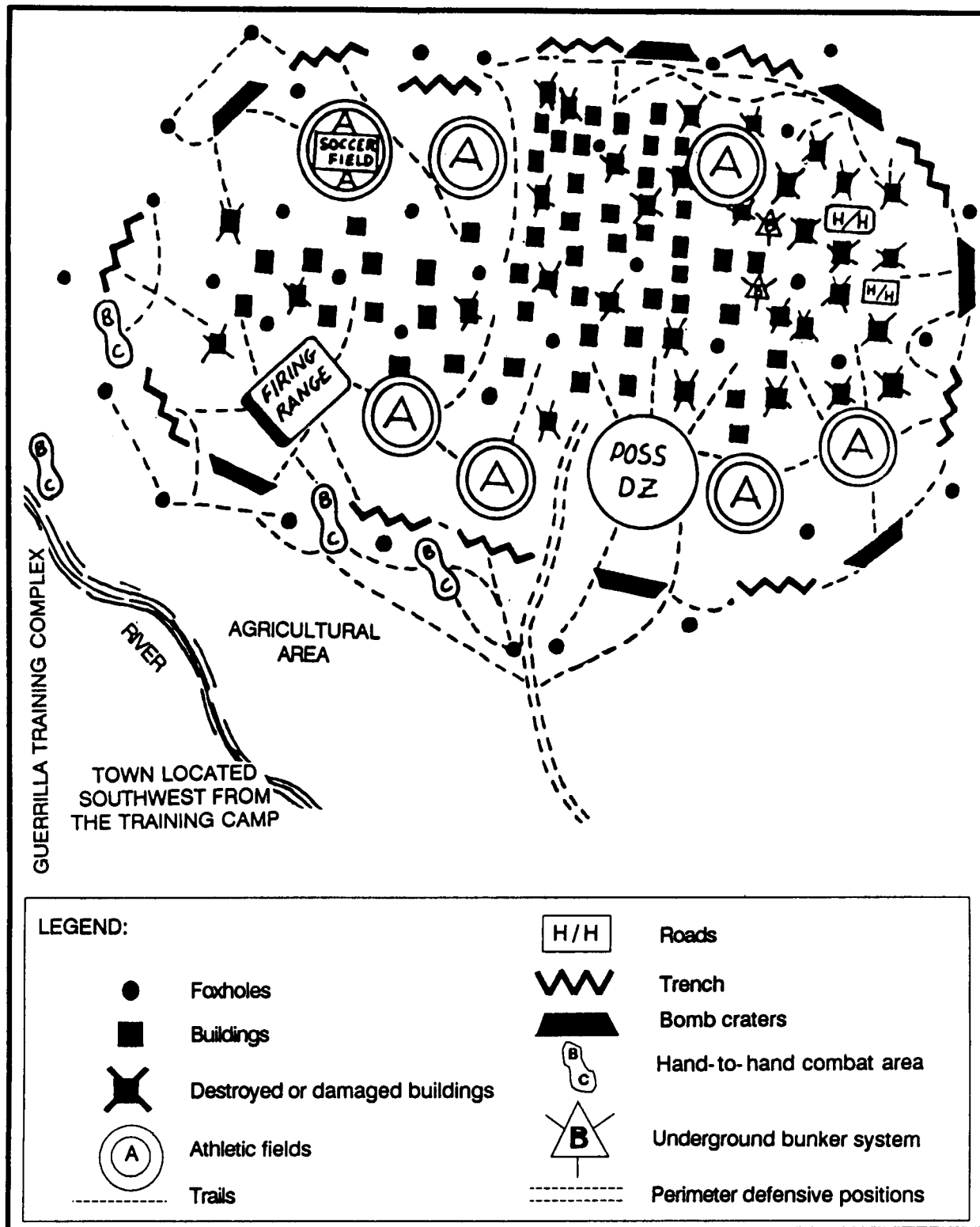


Figure 11-5. Typical guerrilla training complex.

ENGINEERING AND ENERGY SYSTEMS	COMMUNICATIONS AND SUPPLY	TRANSPORTATION	HUMAN
Hydroelectric plants Offshore oil rigs Nuclear facility sites Gas pipelines Dams and electric power lines Water supply Oil and gasoline storage Repair facilities Explosive storage	Communications lines and facilities Chemical storage sites Dock facilities Equipment warehouses Chemical storage sites Computer facilities Weapons storage sites (special and conventional) Food storage	Railroads Bus depot Airports and aircraft Trucking facilities Shipyard, docks <u>COMMERCE</u> Banks Gun and sporting goods store	Embassy and government officials Corporate executives Police Dependents of the above Schools and school buses Areas catering to personal needs Members of military forces and their dependents Foreign tourists
MILITARY			
Sensitive weapons Arms Ammunition POL storage	Logistic and storage facilities Computer facilities Communication centers	Command and control facilities Vehicles	Explosives Recreational facilities Aircraft Maintenance facilities

Figure 11-6. Typical guerrilla targets.

effectiveness of the government forces. Figure 11-7 shows a typical annihilation ambush.

- o Harassment--enemy troops are harassed by engagement in small skirmishes to destroy their will or to distract and tire them, thus causing deterioration of morale. Figure 11-8 shows a typical harassment ambush.

- o Containment--enemy forces are surrounded by mines, obstacles, and small arms fire to halt movement to and from a specific area; usually to keep them from reinforcing a government unit in contact with insurgents. Figure 11-9 shows a typical containment ambush.

INSURGENT MAP SYMBOLS

These are the symbols used by known insurgent groups. Figure 11-10 shows the military mapping symbols. The listing includes many military mapping symbols used by the Soviet armed forces; however, different meanings have been applied.

Insurgents normally use the symbols that are taught to them by the country that is providing training and equipment. Also refer to DA Pam 381-3 for insurgent military map symbols.

MOVEMENT FORMATIONS

Movement formations include--

- o Column formation.

- o Single firing or line formation.

- o Diamond formation.

- o Wedge formation.

- o "L" formation.

- o Two-echelon formation.

- o Fan formation.

COLUMN FORMATION

Column formations are used for deploying from one area to another when government forces are not present. When this move is performed by a squad, all members know their places in the formation. Positions are numbered in advance by the squad leader, and each numbered position is assigned a mission. Odd numbers are used for the left file of the column; and even numbers for the right file. The squad leader determines the spacing between personnel based on the terrain and visibility.

When required by terrain and operational needs, the squad leader divides the squad into two groups. The assistant squad leader takes the second group. This formation is normally used for movement over terrain where there is no probability of attack. The squad's fire power is concentrated on the flanks; therefore, the point and rear are very weak. Figure 11-11 shows the column formation.

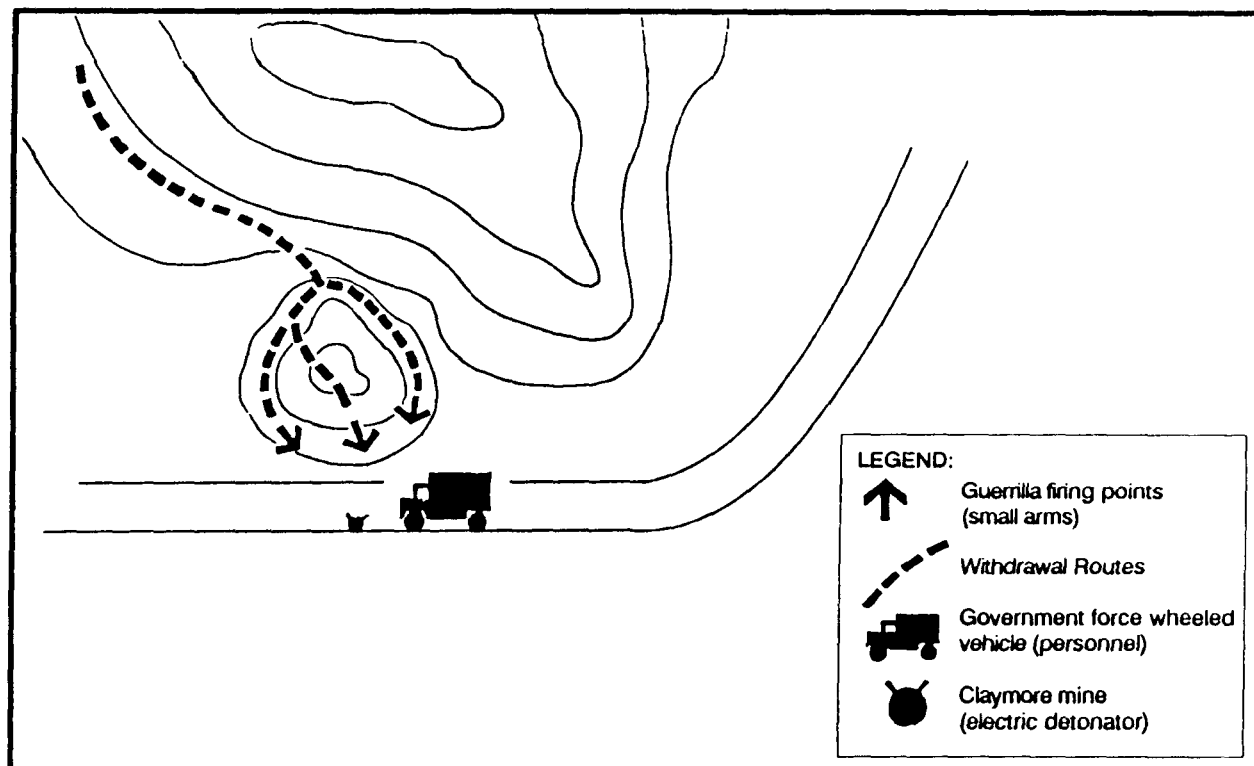


Figure 11-7. Typical annihilation ambush.

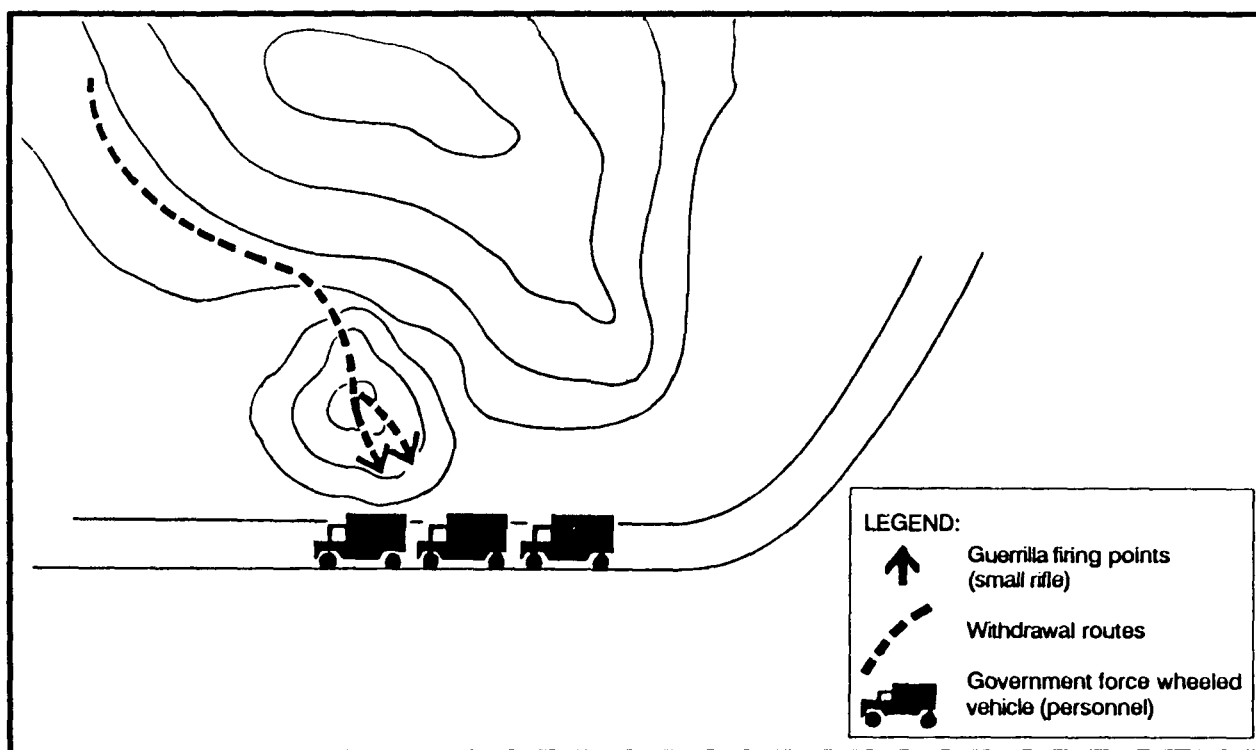


Figure 11-8. Typical harassment ambush.

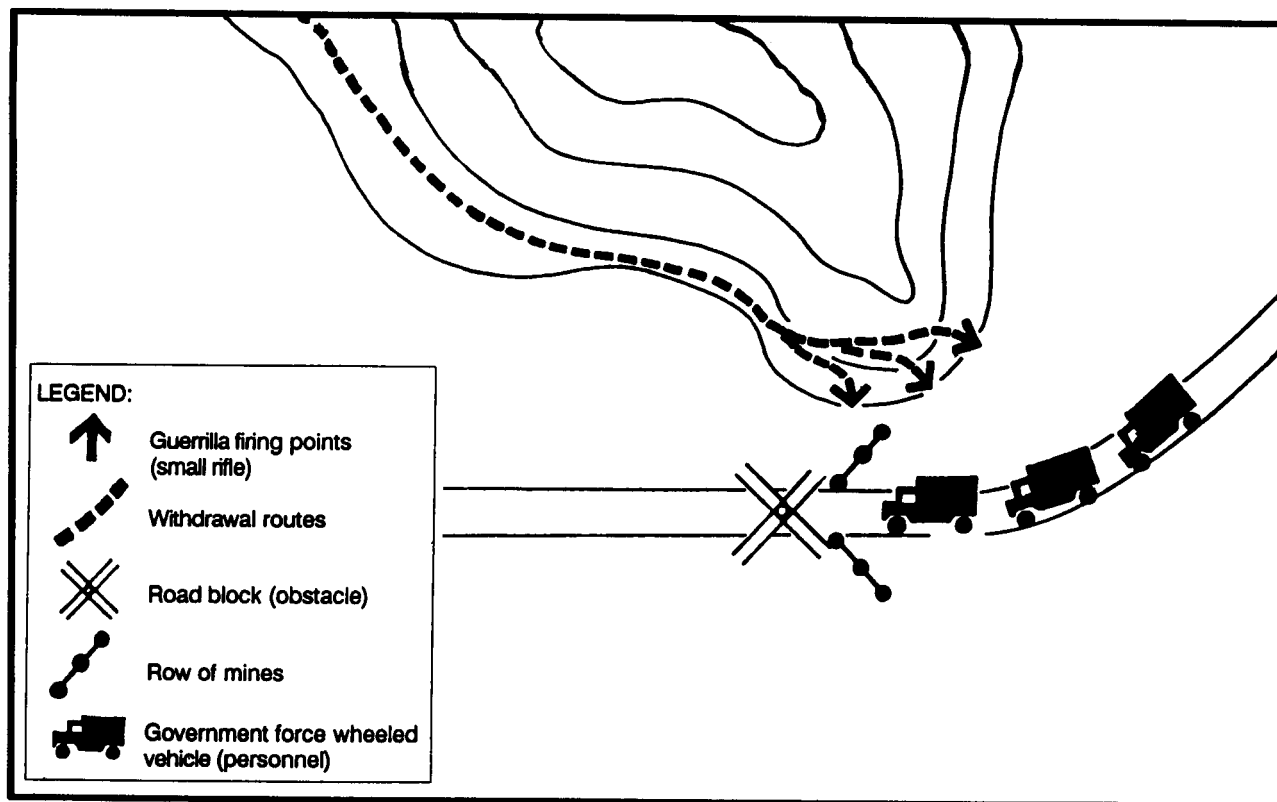


Figure 11-9. Typical containment ambush.

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SINGLE FILE OR FIRING LINE FORMATION

This type of formation is used when necessary to cover a 100- to a 300-meter area. Figure 11-12 shows the single file or firing line formation. It is used when--

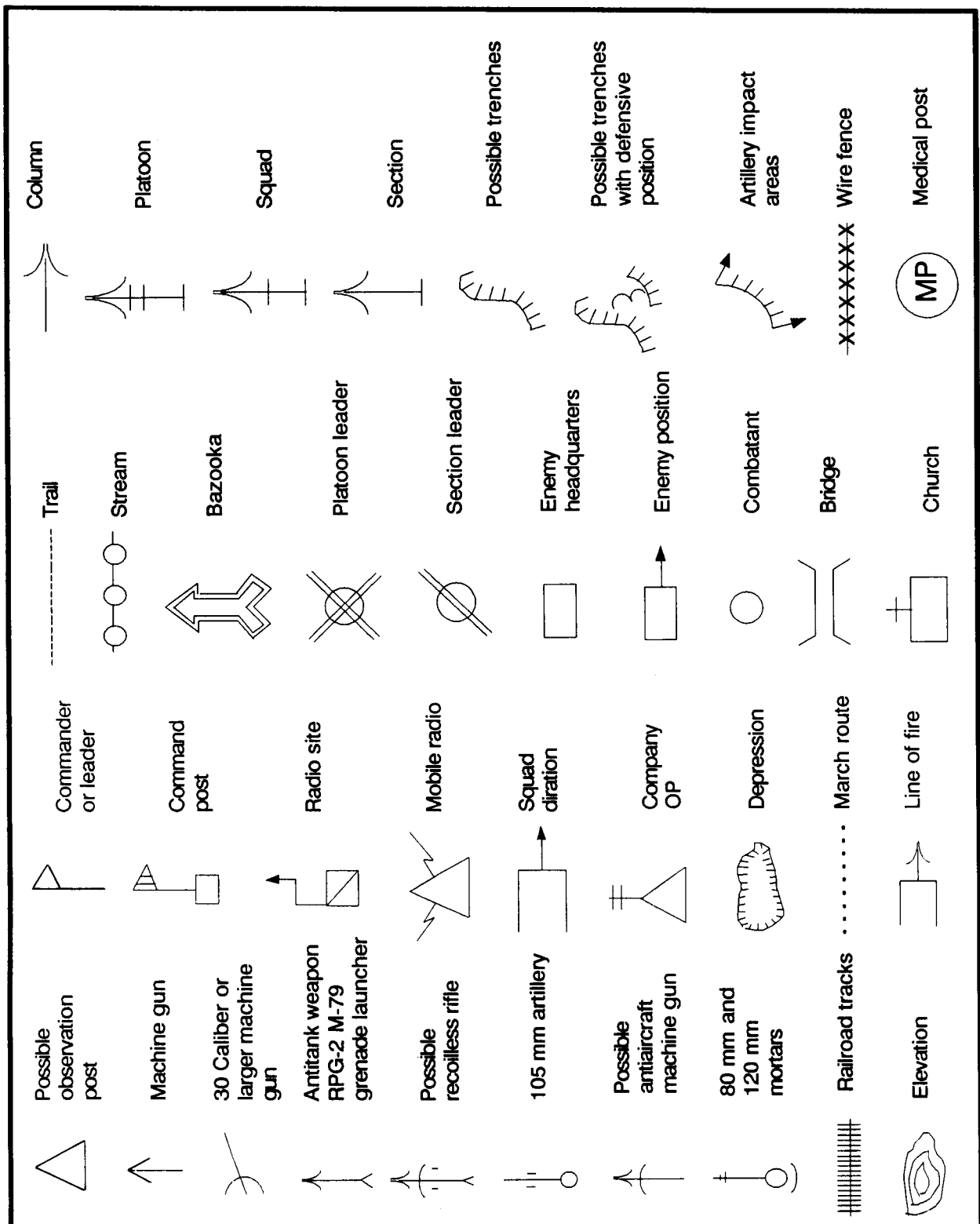


Figure 11-10. Military mapping symbols.

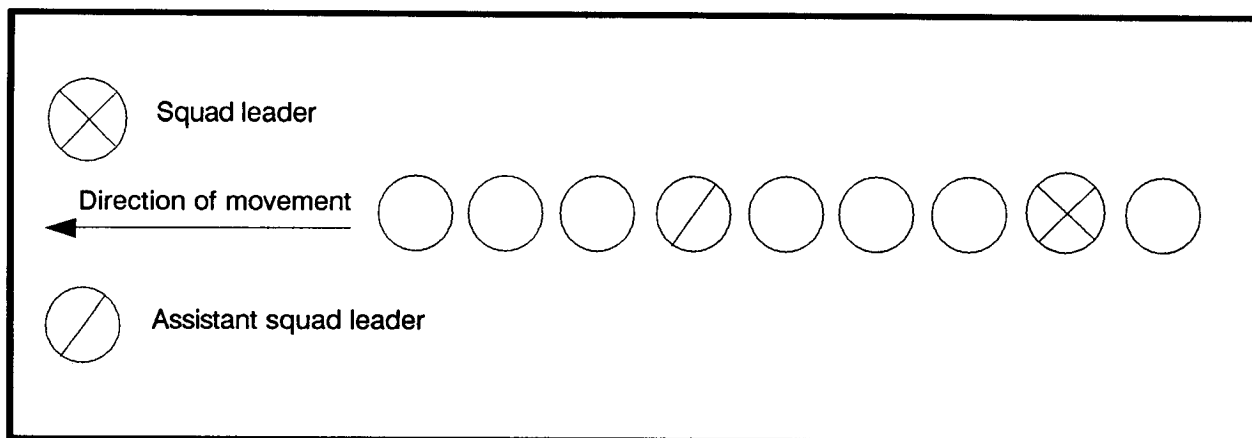


Figure 11-11. Column formation.

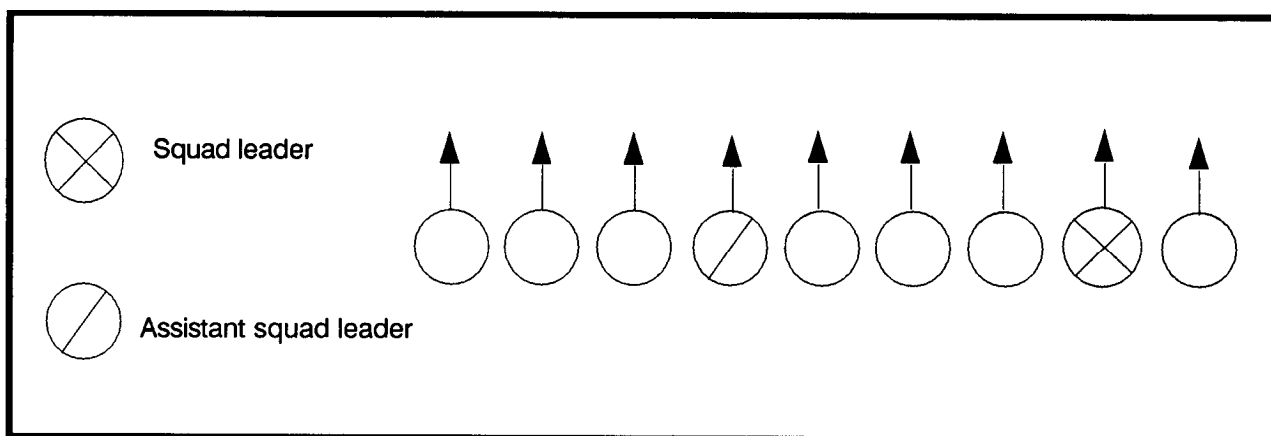


Figure 11-12. Single file or firing line formation.

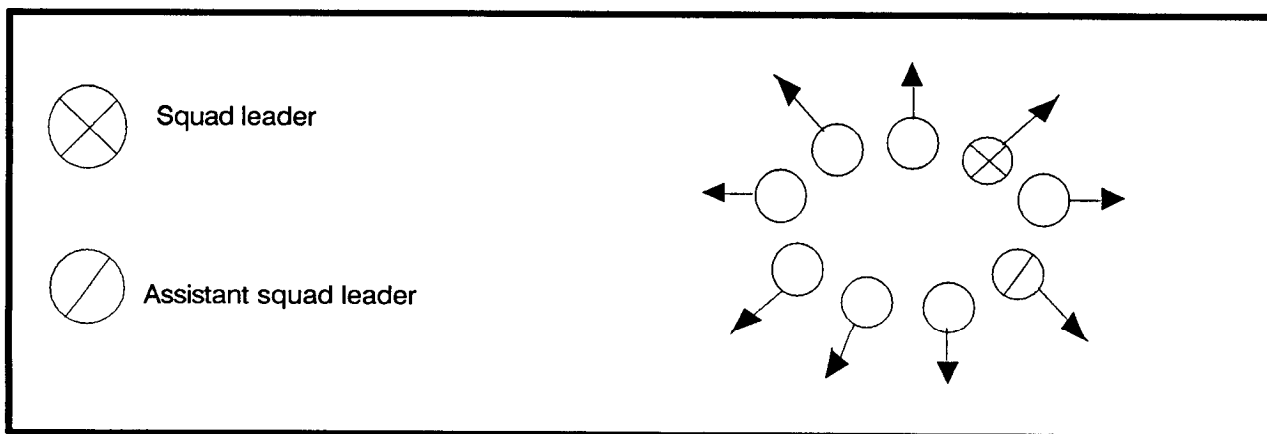


Figure 11-13. Diamond formation.

WEDGE FORMATION

A wedge formation is used for advancing or performing reconnaissance over open terrain. This formation covers the front, as well as both flanks; however, the rear is undefended. This type of formation is used mainly to move where there is a possibility of being attacked. It can also be used to break or penetrate an enemy barrier. Figure 11-14 shows the wedge formation.

"L" FORMATION

The "L" formation is an attack formation used in two flanks. Figure 11-15 shows the "L" formation. It can be used before the assault by deploying one squad to gain a shock while the remaining squad provides security. From the formation of a single to a double column, it can quickly change to a diamond formation. These changes take place on command and are performed as discussed below.

Double Column

Upon command, odd numbers extend to the left, while even numbers extend to the right. One combatant leads the formation at the front while the one at the rear provides rear security. Figure 11-16 shows a double column formation.

Changing Double Column to a Diamond Formation

In order to change a double column to a diamond formation,

the insurgents change the above-mentioned formation. At this time, the insurgents on the right extend to that side, while those on the left extend to the right. (See Figure 11-16.) The combatant from the rear guard at the right flank maneuvers, while providing rear security. The group on the left that heads the team secures the front.

TWO-ECHELON FORMATION

This type of formation is used for a deliberate attack or a movement to contact. While a squad advances, the other one supports it; and upon occupying a new position, the one advancing stops and provides support while the other unit advances. Figure 11-17 shows two-echelon formation.

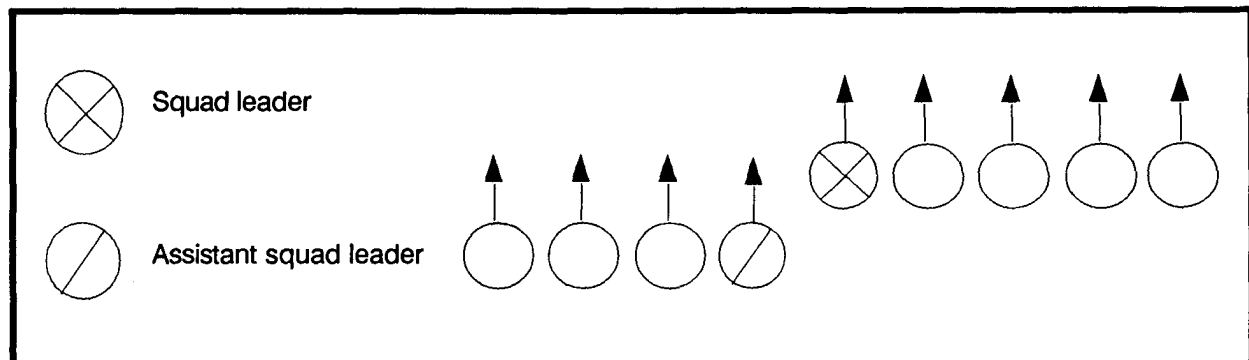
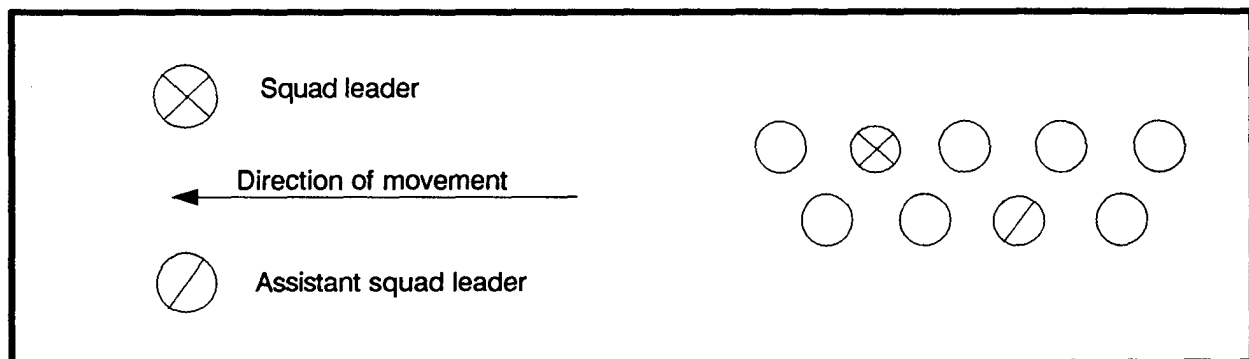
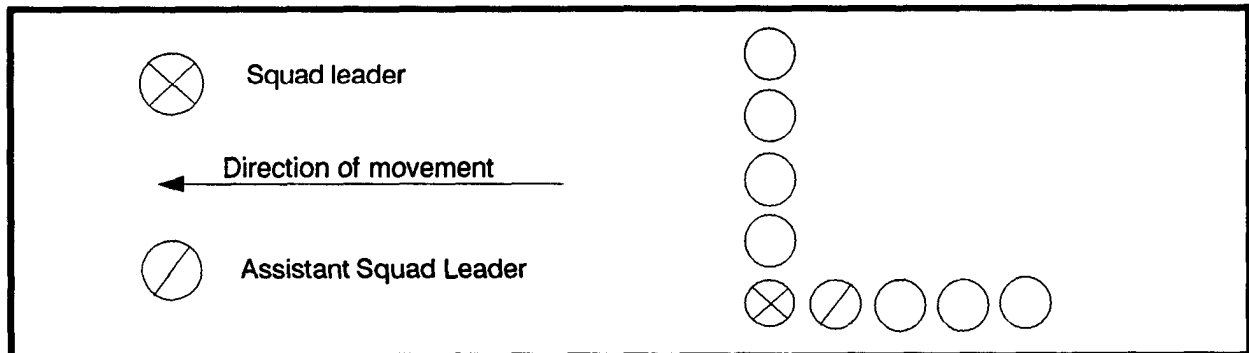
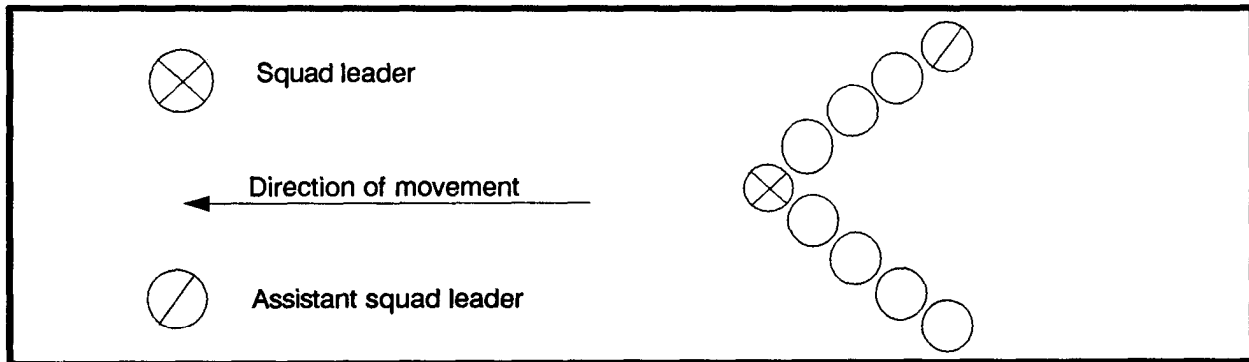
FAN FORMATION

This formation is used when the commander calls the unit to assemble to assign a mission or issue other directives. The voice of command is: "SQUAD ASSEMBLE." Figure 11-18 shows the fan formation.

TACTICAL COMMAND BASIC ORGANIZATION

Basic organizations for the tactical command are the basic unit operations, basic platoon operations, and breaking contact. Figure 11-19 shows the basic organization.

A basic unit operation is when one squad conducts reconnaissance for about an hour before the rest of the



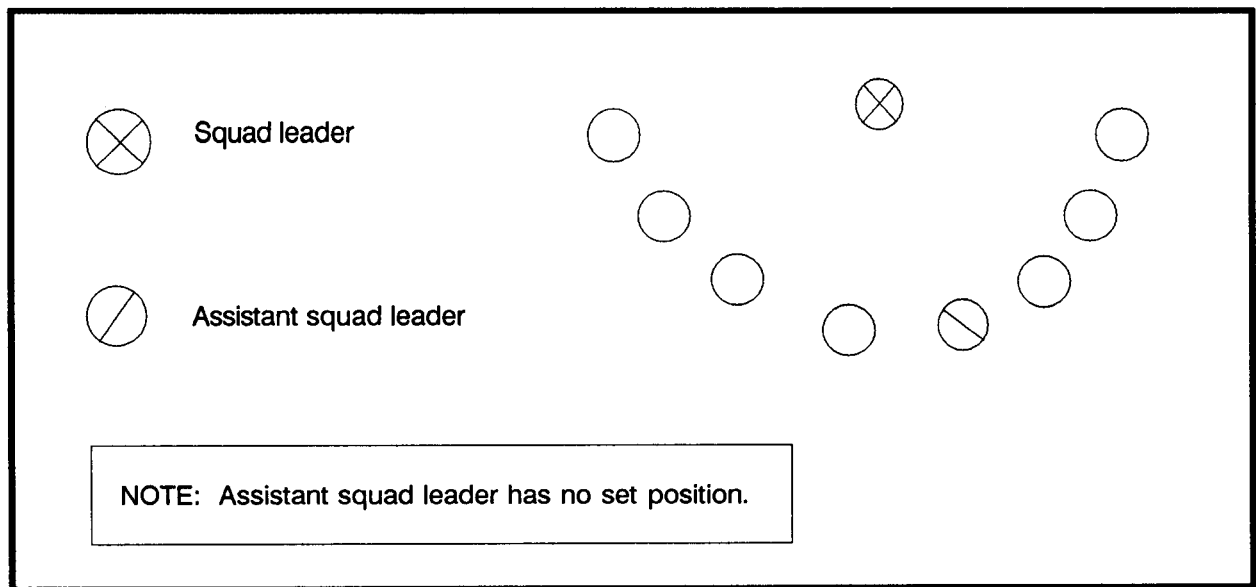


Figure 11-18. Fan shape formation.

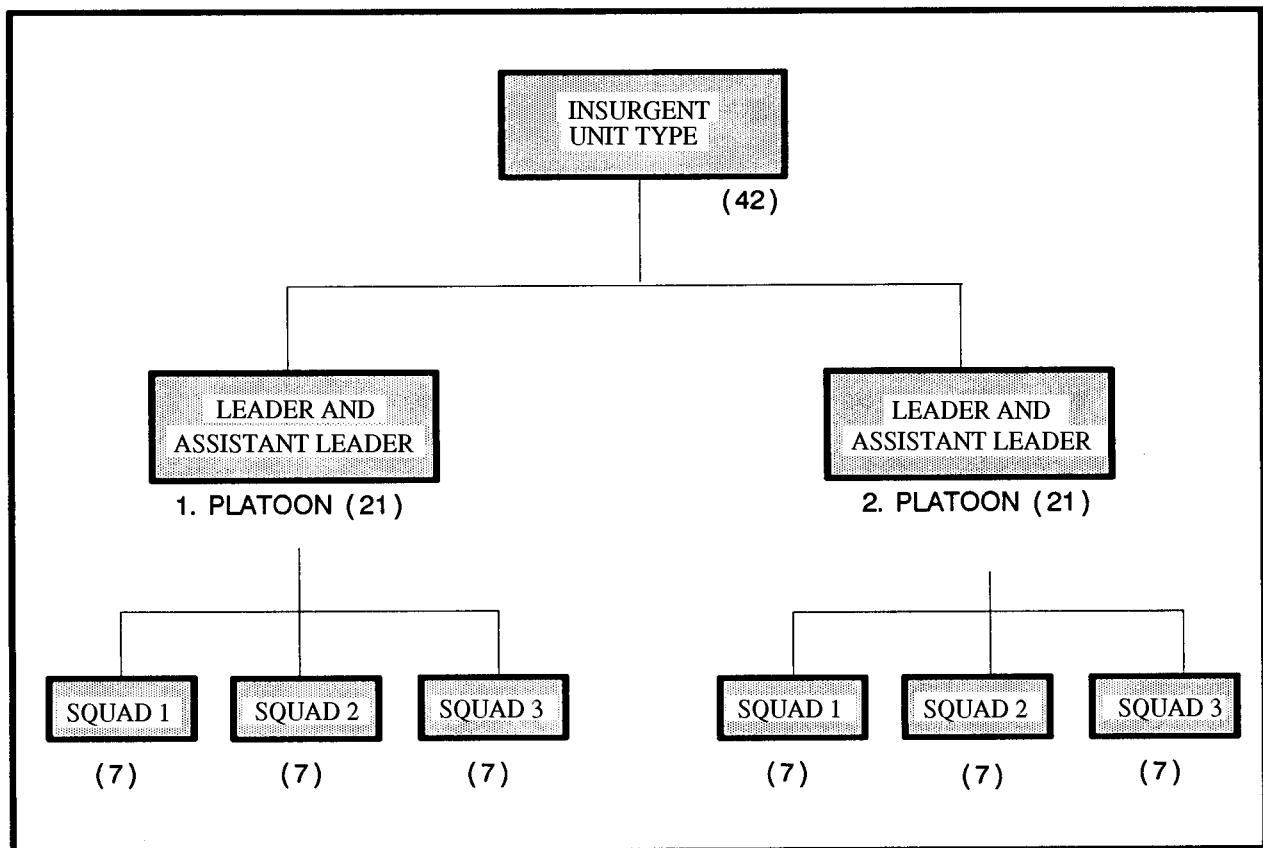


Figure 11-19. Basic organization.

unit follows. This reconnaissance squad then occupies key positions for observation to prevent government forces from surprising the unit.

A basic platoon operation is when the first squad provides frontal security, the second squad covers the flanks, and the third assumes the rear guard role.

When breaking contact with the enemy, the first platoon acts as a delaying force until the second platoon withdraws; after which, the first platoon withdraws by squads. Figure 11-20 lists the sounds produced during basic operations. Figure 11-21 shows a typical base camp which is the hub of all operations.

INTELLIGENCE PREPARATION OF THE BATTLEFIELD CONSIDERATIONS

The doctrine that threat forces use to operate in LIC may not be well known. Your initial IPB effort will probably require you to modify some IPB products to account for the LIC environment. These products can help you plan R&S. Factors not graphically portrayed during the normal IPB process which come into play during LIC include social, political, psychological, and economic factors.

CIVILIAN POPULATION

During LIC operations the civilian population plays a key

role. You enhance your R&S plan and the information obtained by gaining the support of the civilian population. You also become familiar with the civilian populations attitude toward their own government and the US forces. In most cases, your R&S asset will observe or monitor groups of civilians to determine if they pose a threat.

The understanding and analysis of the civilian population during the IPB process impacts greatly on the R&S effort. A lesson learned from Operation Just Cause is that "the population cannot read maps nor give grid coordinates." Therefore, when providing the intelligence information part of IPB during prehostilities, build a street map, showing city landmarks; use this with civilian informants.

IPB PRODUCTS

Products produced during the IPB process impacting on the R&S effort vary depending on the threat. The mission requirement influences the type of overlays and subject categories needed. The following paragraphs cover some LIC IPB products and how they relate to the R&S effort.

Incident Overlay

The incident overlay provides the historical data needed to look for trends and to conduct pattern analysis on the threat. Figure 11-22 shows

SOUND	DISTANCE THE NORMAL HUMAN EAR CAN HEAR IT
Normal conversation can be heard	90 to 100 meters
Conversation in a low voice	35 to 45 meters
Conversation of words	70 to 80 meters
Normal footsteps	20 to 30 meters
Footsteps over leaves and branches	60 to 80 meters
Sound of coughing	55 to 65 meters
Sound of something being dragged	10 to 20 meters
Cocking a weapon	400 to 500 meters
Rifle shot	2 to 3 kilometers
Automatic weapons fire	3 to 4 kilometers
Machete cutting	150 to 250 meters
Cutting down trees	250 to 350 meters
Trees falling down	750 to 850 meters
Digging trenches	1 to 2 kilometers
NOTE: This chart is based on the approximate distance heard without any outside disruptive influence. at sea level.	

Figure 11-20. Sound chart.

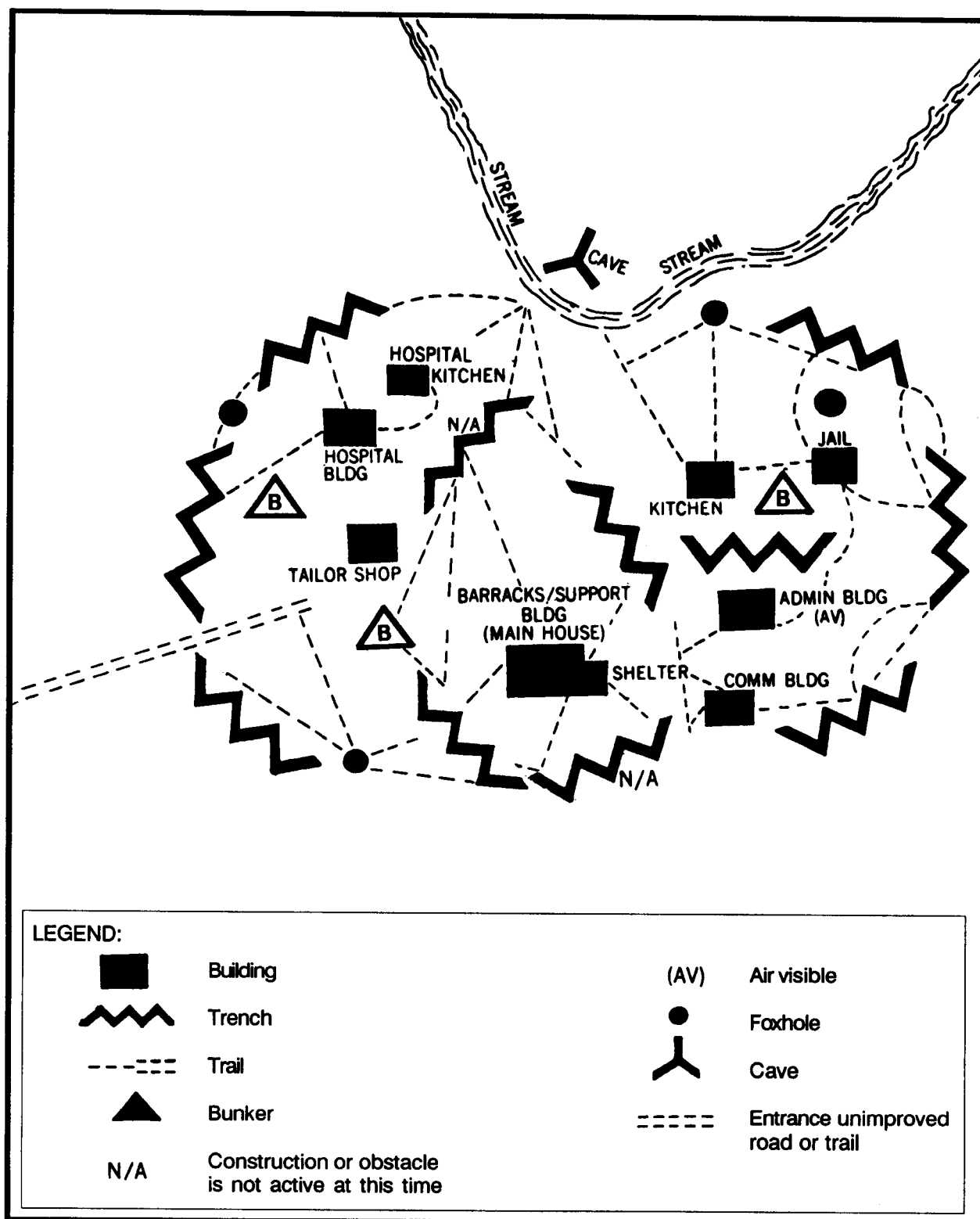


Figure 11-21. Typical base camp.

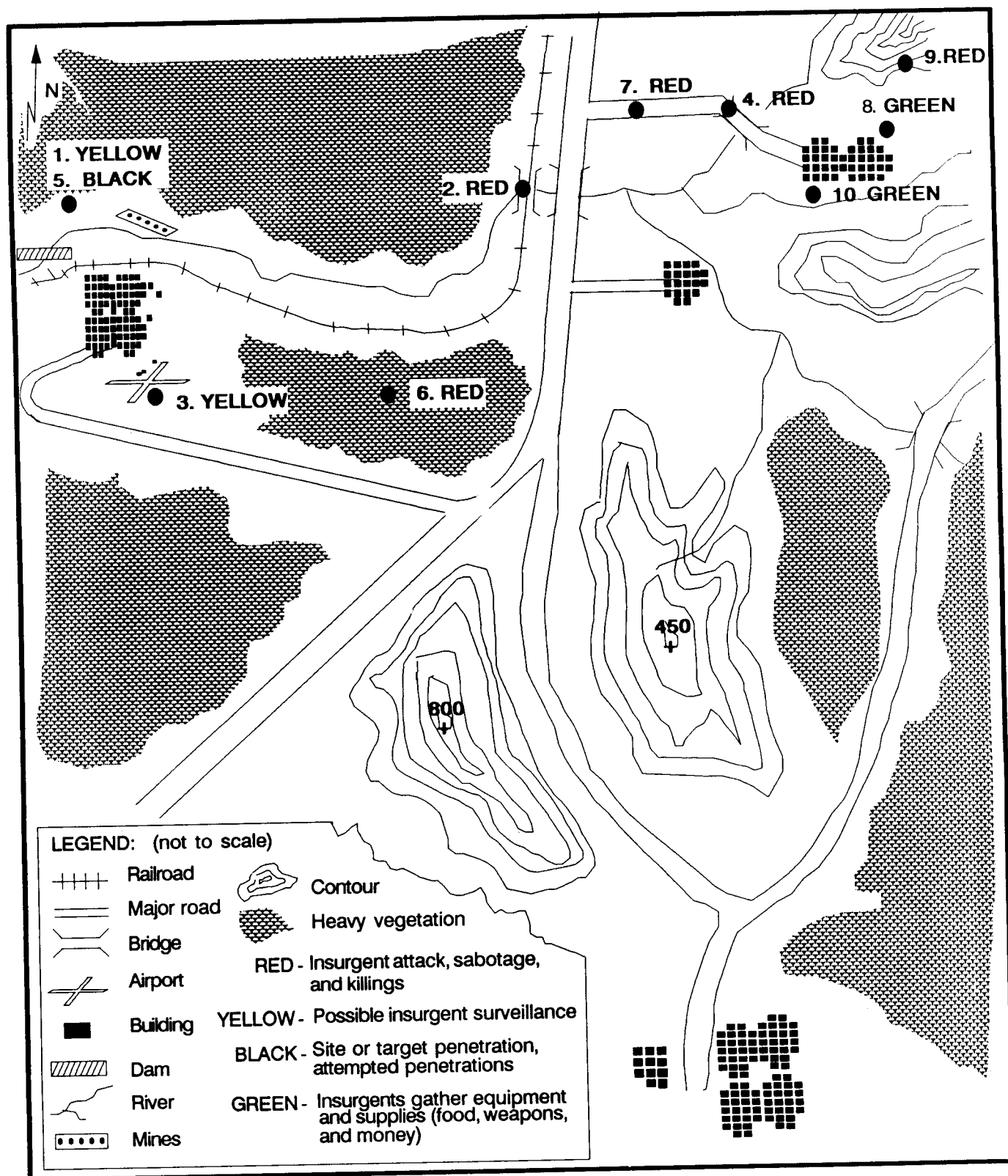


Figure 11-22. Incident overlay.

an incident overlay. You can identify the types of missions the insurgents tend to favor and determine the insurgent AO. This map will show insurgent control or lack of control in specific areas.

Based on this overlay, considerations on where to focus R&S assets are made. Figure 11-23 shows an incident matrix. By constructing an incident matrix, the analyst can determine the times, days, or methods when insurgents will attack targets and can determine their operational trends. The incident overlay will require coordination with the host nation to ensure complete and accurate information.

Situation Map

The insurgent situation map (SITMAP) is built from the incident overlay. Figure 11-24 shows an LIC SITMAP. The SITMAP adds current intelligence and activities which indicate insurgent movement, resupply operations, or attacks. You will confirm or deny information on the SITMAP using R&S assets. These assets--

- o Monitor insurgent supply routes.
- o Monitor radio transmissions.
- o Visit civilian communities.

- o Patrol LOC.
- o Patrol critical sites.
- o Provide coordination between local law enforcement and host nation military units.
- o Provide sketches of insurgent bases.

When briefing patrols, the SITMAP warns of danger areas such as mines or insurgent controlled areas.

Trap Map

The trap map identifies targets the insurgents will attempt to sabotage or attack. Figure 11-25 shows an LIC trap map. These targets may include--

- o Hydroelectric plants.
- o Weapon storage sites.
- o Airports.
- o Banks.
- o Government offices.
- o Terrain favoring ambushes.

Analyze these areas for insurgent access and escape routes. Preplan use of R&S assets to support trap map areas in case indicators show insurgent intent to attack. Photographs or sketches of the areas can help the analysis and planning process.

<u>ACTIVITY</u>	<u>DATE/DAY</u>	<u>TIME</u>	<u>LOCATION</u>
1. Surveillance of hydroelectric plant	06 Sep Friday	1000 to 1800	grid * yellow
2. Railroad bridge sabotaged	12 Sep Thursday	2000 to 2300	grid * red
3. Personnel watching airport	08 Oct Monday	0800 to 1500	grid * yellow
4. Bridge sabotaged	21 Sep Friday	2100 to 2200	grid * red
5. Attempted penetration of hydroelectric plant	03 Oct Thursday	0244	grid * black
6. Mine kills two government troops	15 Oct Saturday	1700	grid * red
7. Mine damages bus, 1 killed 5 injured	15 Oct Saturday	1200	grid * red
8. Food stolen from village warehouse	17 Oct Monday	0230	grid * green
9. Mayor executed in village	18 Oct Tuesday	2100	grid * red
10. Police uniforms and weapons stolen	18 Oct Tuesday	0330	grid * green

* Color code activity and plot on map as dot with activity number next to it. Look for patterns where insurgent forces are concentrating efforts. Identify insurgent targets and possible isolation or terrorizing of villages. Analyze matrix for times or days insurgents may tend to conduct specific operations.

Figure 11-23. Incident matrix.

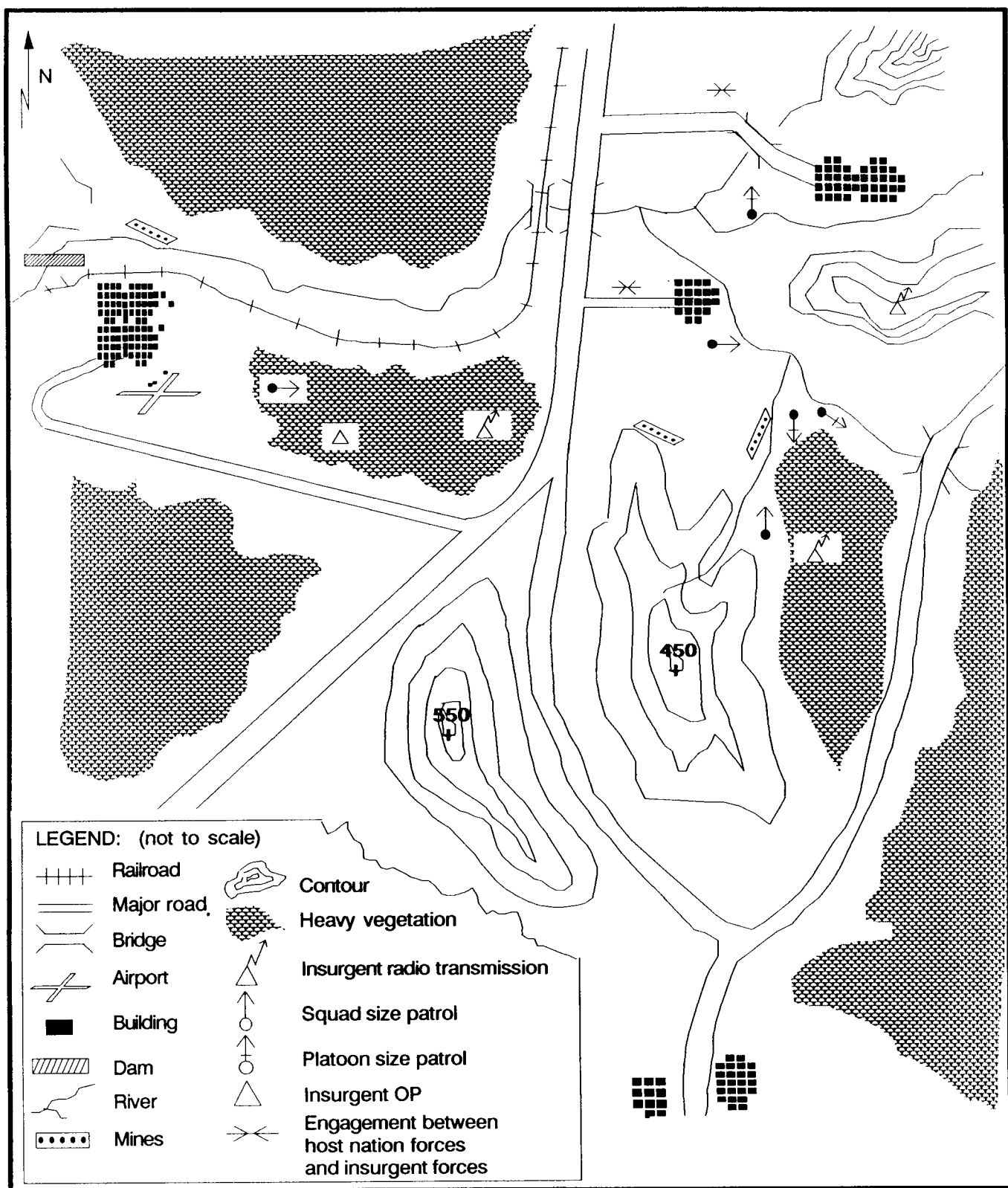


Figure 11-24. LIC SITMAP.

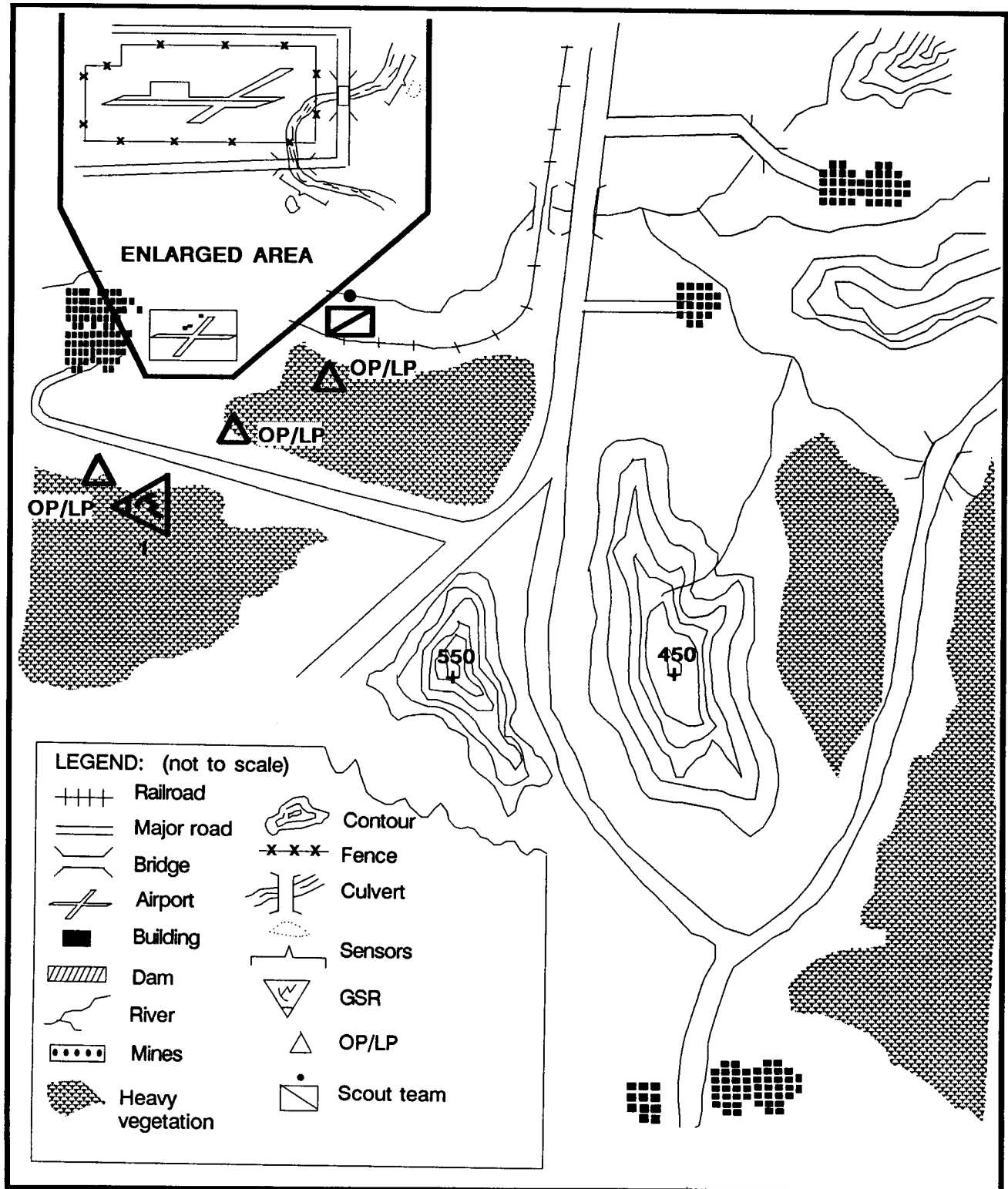


Figure 11-25. LIC trap map.

Population Status Overlay

Figure 11-26 shows a population status overlay. This overlay portrays the attitude of the population in your AO and AI. It shows who supports the government, who is neutral, and who supports the insurgents. This overlay can further classify population into tribal, religious, ethnic, political, or economic groups. The detail of information on this overlay depends on insurgent strategy and availability of information.

Focusing R&S assets toward a particular group may provide vital information on insurgent activity. Knowing pro-Government areas and proinsurgent areas will also help protect your limited R&S assets.

ASSETS

R&S assets available during LIC operations depend on mission and host-nation support. Peacetime contingency operations will require less R&S assets than counter-insurgency operations. Close coordination with the host nation will be vital. Information received from local agencies will supplement the R&S plan.

Typical collection assets available to brigade and battalion S2s during LIC operations include--

- o Patrols.

- o Scouts.

- o GSRs.

- o REMBASS.

- o OPs.

- o Radio intercept and DF.

Additional assets depend on force package and may include--

- o AN/TPQ-36 countermortar radar.

- o AN/MPQ-49 FAAR.

- o Army aviation.

- o QUICKFIX and CI and interrogation of prisoner of war teams, supporting MPs, and host-nation law enforcement and intelligence units.

PATROLS

In LIC operations, patrolling is one of the primary ways to obtain and develop information. Patrols collect data on population, insurgent activity, and terrain by using a combination of route, zone, and area reconnaissance.

Effective patrolling provides the location, strength, and disposition of insurgent forces. Patrols can confirm insurgent weapons and the presence of foreign military advisors. Areas requiring special attention while planning patrols include

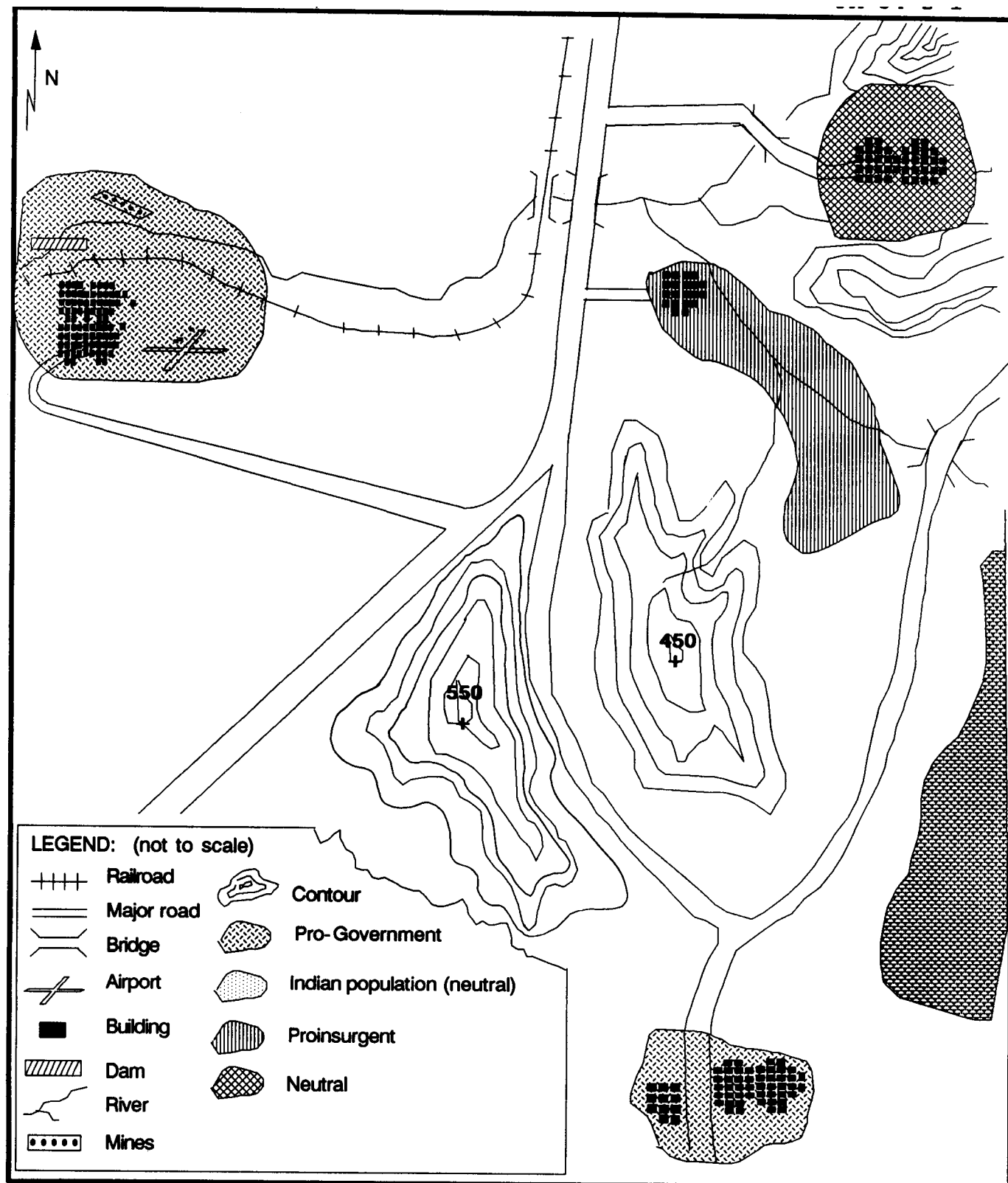


Figure 11-26. Population status overlay.

rivers, streams, and agricultural areas. Patrols conducted around key installations give early warning and prove effective during CR or security missions.

Limitations to consider include communication and security. The primary means of communication for dismounted patrols is the FM battery-powered AN/PRC-77. Also, the patrol's small size leaves it vulnerable to ambush or attack.

The scout platoon gathers information on insurgent forces while conducting patrols or by established OPs in assigned areas. They conduct much the same missions as patrols from the line companies; but scouts usually extend out farther than company patrols. Examples of missions that scouts conduct include--

- o Locating and providing detailed information on insurgent bases.

- o Establishing OPs to monitor these bases while friendly forces move forward to attack.

- o Reporting possible supply routes used by insurgent forces.

Augmenting patrols with attached interrogation assets can add to the patrol's ability to gather intelligence by interrogation or questioning of the local populace.

Augmentation of native scouts familiar with the area provide an advantage. Again, communications and security are primary limitations to scout operations.

GSR

GSR missions in an LIC environment may include continued search of open areas or surveillance of point targets. GSRs are very effective when integrated into R&S plans for installations, bases, and airfield security. They can verify activity detected by other sources (such as OPs, REMBASS, NODs) or vector friendly patrols.

The AN/PPS-5 and AN/PPS-15 are currently found in MI battalions supporting airborne and air assault divisions. The AN/PPS-15 is found in light infantry division MI battalions. System use depends on the AO and the mission.

GSR limitations include LOS to target. This is a key factor when insurgent activity occurs in forested or urban areas.

Extremes in weather such as rain, wind, or snow will degrade their operations.

AN/PPS-5 users must consider the system's weight if the mission is in rough terrain or requires quick movement. It weighs in excess of 110 pounds without

batteries, which are 12 pounds each.

REMBASS

REMBASS is a valuable asset in the LIC environment. REMBASS gives indications on the amount of traffic along suspected insurgent trails; and it provides early warning when used along routes leading to possible insurgent targets or friendly base camps.

Sensors have a 24-hour, near all-weather capability. The information obtained cues the use of patrols, GSR, or OPs to confirm activity. Considerations when using remote sensors include radio LOS to the relay or monitoring station. The transmitting range is about 15 kilometers for sensors and repeaters, and up to 100 kilometers for airborne repeaters.

VOICE COLLECTION TEAMS

The MI battalion subordinate to heavy, light, air assault, and airborne divisions have voice collection teams capable of supporting the R&S effort. The AN/TRQ-32 TEAMMATE and the AN/PRD-10 provide IEW support. The QUICKFIX and GUARDRAIL (a corps MI brigade asset) can assist in the EW collection effort based on availability.

The AN/TRQ-32(V)(I) (TEAMMATE) will intercept HF, VHF, and UHF communications.

It provides VHF LOB data. The power of the intercepted signal and LOS determine range capability. Limitations to be considered include mobility of the prime mover and security for systems when operating outside a security base.

The AN/PRD-10/11/12 is a mobile radio DF system. It can operate as a single station providing intercept and LOB data. When operating in the net mode with three other stations, the AN/PRD-10 provides intercept and manually computed radio DF fix locations of enemy transmissions. The AN/PRD-10 weighs approximately 80 pounds; its range depends on LOS and the power of the intercepted signal.

When available, the QUICKFIX or GUARDRAIL can conduct airborne DF. These systems have extensive range and can provide locations on enemy transmitters.

Evaluate all available assets within the brigade or battalion capable of supporting the R&S effort. Some assets and their capabilities follow:

- o Helicopters resupply, insert, or extract patrols; they also conduct limited route and area reconnaissance.

- o The countermortar radar AN/TPQ-36 (DS to the artillery battalion) provides information on insurgent mortar locations.

FM 34-2-1

- o Patrols search suspect areas for mortar tubes and ammunition cache sites.

- o CI teams provide information on insurgent activities and their intelligence capabilities.

Consider all human sources such as convoy truck drivers, FOs, and personnel from host-nation agencies or units (such as refugee camps, civil affairs checkpoints, local

law enforcement, and intelligence.)

Fighting in an LIC environment requires a continuous R&S effort. This effort stresses reporting information to the S2 and disseminating that information no matter how insignificant. It also involves the total force. Figure 11-27 is an example of how these assets are employed in a battalion R&S plan.

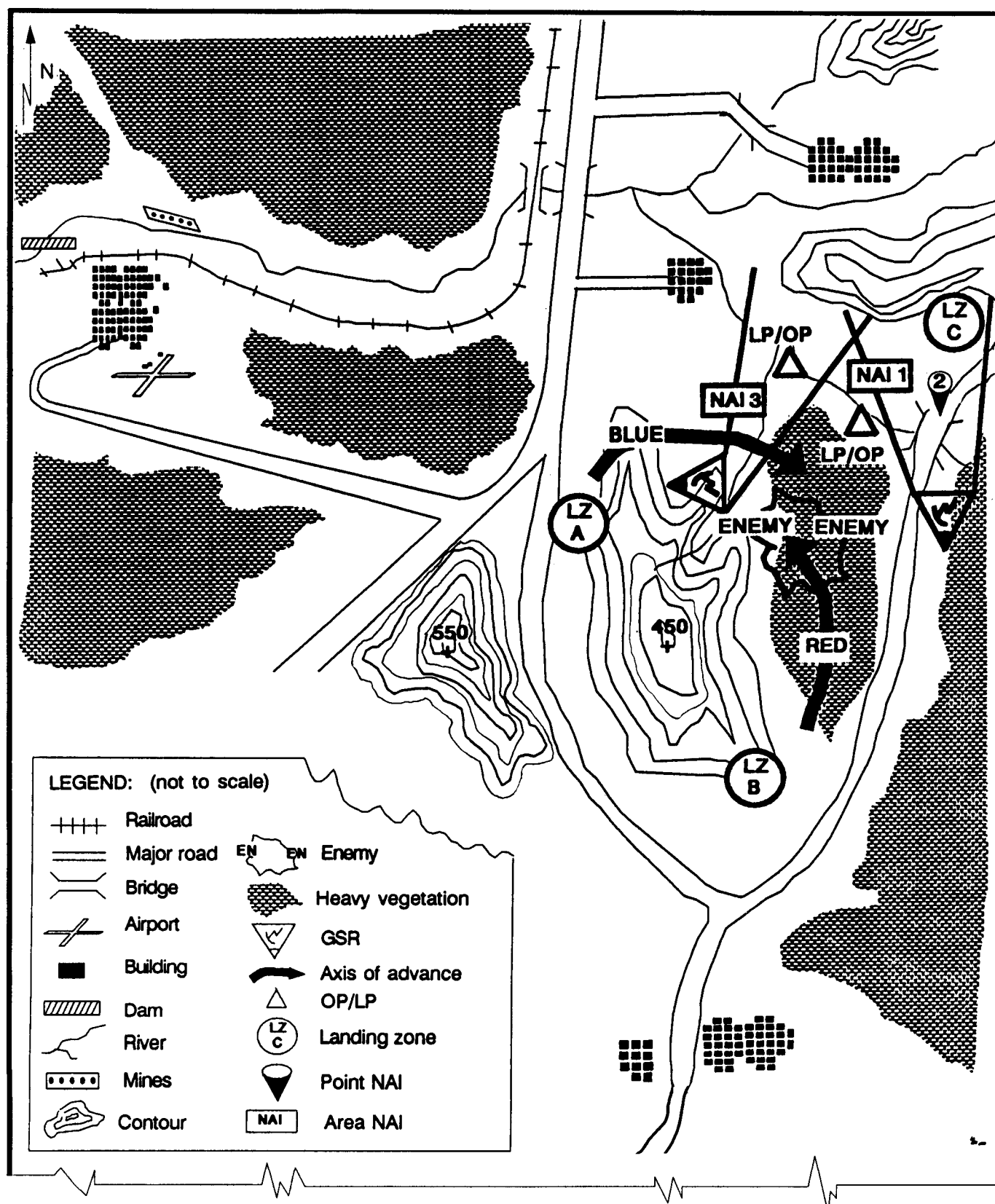


Figure 11-27. Battalion R&S plan.

INSTRUCTIONS
FOR BATTALION R&S PLAN
(LIC)

Scout Teams: Team 1 insert during darkness by POV or HMMWV. Check LZ A and conduct route reconnaissance along Axis Blue. Establish base at GSR position 1 and continue with four personnel to find enemy base camp vic 1111. Two personnel will return along Route Blue with sketches of enemy base and will guide attack force. The two personnel remaining at enemy base camp report activity and indications camp may move prior to attack. Pick-up point for personnel with sketches vic 612345 (during darkness).

Team 2 insert during darkness same technique as team 1. Check LZ B and conduct route reconnaissance along Axis Red. Locate enemy base camp and provide sketches. Two personnel will remain to observe and report base camp activities. Establish pick-up point for personnel with sketches vic 222222 (during darkness).

Team 3 use same insertion technique at vic 333333. Establish scout camp with GSR position 2. Set up OPs/LPs vic 444444 and vic 555555. Report enemy movement in NAI 2 and also check LZ C.

GSR: Team 1 move with scout team 1 and establish site vic 666666. Report enemy patrol activity along river vic 777777. Vector scouts upon request.

Team 2 move with scout team 3. Establish site vic 888888 to monitor bridge NAI 3 and NAI 2. Give priority to movement along river, then activity across bridge.

Figure 11-27. Battalion R&S plan (continued).